BRUHAT BANGALORE MAHANAGARA PALIKE

YELHANKA ZONE ELECTRICAL DIVISION

Name of Work :- Detailed Estimate for Providing and fixing LED Street Lights in Ward no 8 in Byatrayanapura Division.

Budget Head ....P3110.....

Division No..... Estimate No. ..... For Rs. **1500000.00**

Sl.No.	SR Page & SL No	Description of Work	Qty.	Rate Rs.	Unit	Amount
1	27/4.36.3	LED Street light.Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacture. Suitable for B1/B2 Roads as per IS 1944 Part I & Part LED Streetlight 65watts	22	18720.00	Nos	411840.00

2	4.36.1	LED Street light. Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs. 50000 hr. @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4 KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI 75+. housing with supplier word mark / name shall be engraved / Embossing on the die cast housing / body part. . Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacturer. Suitable for A1/A2 Roads as per IS 1944 Part I & Part II.90 Watts	19	31250.00	Nos	593750.00
3	35/5.16.5	Fabricating, supplying and erection of ...Mtrs long hot dip Galvanized Conical pole with BSEN 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangements, including suitable boards, Bakelite sheet and MCBs as per IS specifications suitable to withstand the wind speed of 47 m/sec for .....Mtrs pole in single section and single joint welded as per IS 9595/IS 10178AWS having dimensions bottom .....mm, top....mm with 3mm thick, suitable base plate and 4Nos of ..... long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65micron as per ASTM-A123 and 153 etc.,(excluding foundation) as per drawing appended.7 meters - Top 75mm and bottom 145 mm dia	13	14040.00	Nos	182520.00
4	36/5.18.1	Supplying, and fixing of Hot dip Galvanized M.S.Bracket suitable for out door luminaries and mounted on Octagonal pole using necessary bolts, nuts etc., complete.Single Arm Bracket with 1000mm Standard 40/50MM dia	7	1919.00	Nos	13433.00
5	36/5.18.4	Double Arm Bracket with 1000mm Standard 40/50MM dia	6	2640.00	Nos	15840.00

6	12/2.12.1	Wiring for lighting/power circuit using one of PVC insulated 1100v grade stranded **Aluminium** unsheathed wire single core/multi core cable in open or consealed system of wiring. a)4 sqmm.	250	7.50	Each	1875.00
7	56/7.6.3	Supplying of 1.1kv grade Aerial Bunched cable stranded & compacted Aluminium Phase conductor and Stranded Messenger conductor with all aluminium alloy, Phase conductor is insulated with XLPE compound insulated Messenger with specified IS - 14255:1995 & confirming to GTP of group A. 3X16 + 1X25 + 1X16 sqmm	250	117.00	Per Mtr	29250.00
8	Bes SR	Stringing of 1.1kv LT Arial Bunched Cable, BESCOM SR	250	10.30	Per Mtr	2575.00
9	Bes SR	Piercing connector suitable for 16 sqmm - 95 sqmm AB cable -steel light connection. Bescom SR of 2010-11, Page no 16 of 34, Serial no 51.12.	7	147.00	Nos	1029.00
10	Bes SR	Suspension clamp assembly 25 to 95 sqmm bare messenger. Bescom SR of 2010-11, Page no 16 of 34, Sl no 51.17.	7	280.00	Nos	1960.00
11	Bes SR	Dead end clamp / Anchor clamp assembly 25 to 95 sqmm bare messenger, Bescom SR of 2010-11, Page no 16 o 34, Sl no 51.16.	2	140.00	Nos	280.00
12	Bes SR	Erection of Suspension Clamp - 25 to 95 sqmm bare messenger. Bescom SR of 2010-11, Page No 21 of 27, Sl No 26.6.	7	85.00	Nos	595.00
13	55/7.4.4	Supplying of LT UG cable having aluminium conductor PVC insulated, sheathed, galvanished, steel wire/steel tap armoured cable with PVC outer sheating 1.1 KV class.I. Class 'A' PVC Cable. 4 core 16 sqmm	225	140.40	Per Mtr	31590.00
14	61/7.8.2	Labour charges for lying of 1.1 KV class UG cable when supplied agency in existing trench GI pipe / stoneware pipe / on wall /on pole as required. I. In existing trench/duct.b)25sqmm to 75 sqmm	225	16.20	Per Mtr	3645.00
15	62/7.9.4	Digging of trench of 0.6 m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc.,complete. (As perCivil SR KSRB I-2, P-7).a) Asphalt cutting	200	117.00	Per Mtr	23400.00
16	33/5.85	Supplying and Fixing ..... including all Hardware's etc. complete as per the standard technical specification of BESCOM. RCC Clamp	7	84.00	Nos	588.00

17	47/6.16.6	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.5-32Amps SP	10	418.00	Nos	4180.00
18	19. 32/9	Supplying and fixing electro mechanical timer (without contactor) using necessary bolts, nuts and washers etc.. Group A, PWD SR 2006-07,	5	4200.00	Nos	21000.00
19	46/6.12.4	Supply and fixing of 4-pole power contactor with NO/NC contacts on existing wood / panel board using necessary bolts, nuts, washers and wiring etc., complete. d) 100-125 Amps	5	9915.00	Nos	49575.00
20	6/2.6.1	Wiring for lighting/power circuit using one of PVC insulated 1100v grade, multis and **Copper** conductor single core cable in open or consealed system of wiring.I Group A Materials.a)1 sqmm.	200	10.75	Mtrs	2150.00
21	6/2.6.7	.g)16 sqmm	~~10~~	~~132.00~~	Mtrs	
22	17/3.10	Supplying and fixing phylum brand hand plastic sheet 3mm thick with necessary niches for fixing switches, regulators etc., and fixing on exisiting wood or metal box using N.F.screws	6750	0.22	Sqcms	1485.00
23	49/6.39.1	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. And M.S. flat... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. a)40X40X6mm	5	263.00	Mtrs	1315.00
24	6.42.2	Supply and Installation / Fixing / Provision of Outdoor type Thermoplastic Modular Panel enclosure with transparent Polycarbonate Lid, shock proof, IP65 (Weather Proof), rust proof, dust proof, water proof, corrosion proof having internally Embedded gasket on both lid and flap suitable to fix Single Phase / Three Phase Energy Meter in suitable base plate and having a provision for Fuse / MCB cutout with suitable transparent hinged flap opening for operating MCB along with complete tamper proof SEALING facility.300mmx450mmx214mm	5	5826.00	Nos	29130.00

25	2 108/17.2.2	Supplying and Fixing of.....mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires.Using 32mm dia G.I.pipe	25	893.00	Nos	22325.00
26	PWD Sr	Providing Rcc Pole pedstal of Size 0.5x0.5x1.6 Mtrs Including digging of pit, tor steel, anchoring bolts nuts ,templates ,Centring,1;4;8base concrete,1;2;4pedestal concrete and etc coplete as per the data sheet enclosed	13	4199.00	Nos	54587.00
		Mislenious				83.00
						1500000.00

CERTIFICATE

1. The Place was inspected and work is essential.
2. The Provision made in the estimate is adequate and are necessary.
3. The Work comes in the BBMP limit and is legitimate charges on the Corporation Funds.
4. The rates in the Estimate is based on PWD (Elec) SR of 2014-15 .

Jr/Asst. Engineer (Elec)

Asst. Exe.Engineer (Elec)
yelhanka zone
Bruhat Bangalore Mahanagara Palike

EXECUTIVE ENGINEER (ELEC)
YELHANKA ZONE
BRUHAT BANGALORE MAHANAGARA PALIKE

Administrative Sanction for Rs. 15.00 Lakhs
Fifteen Lakhs. only
is accorded under P 3110 14th Finance
Commission Grant work
Registered as EE No. Subject
to conditions contained in enclosed memo
No EE(Ele)/42/AS/22/16-17 Dt. 02.03.2017

TECHNICALLY SANCTIONED FOR Rs. 15.00 Lakhs
Rupees Fifteen Lakhs. only
Under P 3110. 14th Finance
Commission Grant Work
Registered as EE( ) No.
Subject to conditions contained
enclosed memo of EE( ) No. EE(Ele)/42/TS/23/16-17
Dt. 03.03.2017 Estimate A/ Dated
EE(Ele)/42/AS/22/16-17 No.
Dated 02.03.2017 Rs. 15.00 Lakhs

BRUHATH BANGALORE MAHANAGARA PALIKE

Yelahanka Zone

Detailed Estimate for ;	Concrete Bedding as per Specification and drawing given in Electrical SR 2014-15 for Installation of Octagonal/Tubular Pole of 8 mtr									
								Estimate Cost in Lakhs		4199.25

SL. No	Description of Item	Unit	No		L	B	D	Qty	Rate	Amount
1	Eartwork excavation for foundation of buildings,water supply,sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches,stacking the excavated soil clear from edges of excavation with lead upto 50m. after breaking of clods complete as per specifications.									
	Basic rate = 178.00									
	Add 8% A.W = 14.24									
	Total = 192.24									
		Cum	1	1	0.80	0.80	1.50	0.96		
								0.96	**192.24**	**184.55**
	KSRB 4-6.1: Provding and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications (p.NO-16, I No-4.28)									
	Basic rate = 226.00									
	Add 8% A.W = 18.08									
	Total = 244.08									
		Sqmtrs	4.0	1	0.50	0.50	1.60	**1.60**	**244.08**	**390.53**
2	Providing and laying in position plain cement **concrete of nominal mix 1:4:8** using 40 mm and down size graded granite metal machine mixed,concrete laid in layers not exceeding 15cm thick well compacted,in foundation and plinth,including cost of all materials ,labour,HOM of machinaries ,curing complete as per specifications. **[P.No-12, I.No-4.3].**									
	Basic rate = 4695.00									
	Add 8% A.W = 375.6									
	Total = 5070.6									
		Cum	1	1	0.05	0.80	0.80	0.03		
								0.03	**5070.60**	**162.26**

3	Providing T.M.T steel **reinforcement for R.C.C work** including straightening,cutting ,bending ,hooking,placing in position,lapping and/or welding wherever required,tieing with binding wire,anchoring to the adjoining members wherever necessary as per design (laps,hooks and wastage shall not be measured and paid) including cost of all materials ,labour ,HOM og machinaries,curing complete as per specifiactions. **[P.No-16 I.No-4.46].**											
	Basic rate = 6463.00											
	Add 8% A.W = 517.04											
	Total = 6980.04											
	12mm dia	Qtl	1	8	1.6	0.89		11.39				
	8mm dia 4x0.7=2.8mtrs say 3mtrs		1	8	2.0	0.39		6.24				
	Plates and J Bolts							0.50				
								18.13	kg			
								0.18	**6980.04**	**1265.62**		
4	Providing and laying in position reinforced cement concrete of nominal mix 1:1.5:3 using 20mm and down size graded granite metal machine mixed, concrete laid in layers not exceeding 15 cm thick vibrated for all works , in foundation, plinth and sills including cost of all materials,labour,HOM of machinery, curring complete as per sepecifications (P-12 It no.4.11)											
	Basic rate = 5084.00											
	Add 8% A.W = 406.72											
	Total = 5490.72											
		Cum	1	1	0.50	0.50	1.60	0.40				
								0.40	**5490.72**	**2196.29**		
5	Miscellaaneous Charges											
								Total		**4199.25**		

Certificate

1. The above location is facing under jurisdiction of BBMP limit.
2. Certified that I have personally inspected the area and prepared the estimate.
3 Certified that the work proposed in this estimate is not included in any other scheme
4. Certified that the estimate is prepared as per SR of PWD
5. The above specified works are essential and minimum

A.E / J.E

Asst. Executive Engineer (Ele)
Yelahanka Zone

Executive Engineer (Ele)
Yelahanka Zone, BBMP